

# Grevillea,

A MONTHLY RECORD OF CRYPTOGAMIC BOTANY  
AND ITS LITERATURE.

## NOTICES OF NORTH AMERICAN FUNGI.

By the REV. M. J. BERKELEY, M.A., F.L.S.

(Continued from page 84.)

\*451. **Coccolaria stictica**. *B.*—Peritheciis punctiformibus nigris; sporis breviter ellipticis. On dead bark. Car. Inf. No. 2235. On *Platanus*. Ravenel. No. 1532.

Perithecia punctiform, black; spores shortly elliptic, nearly as broad as long, with a distinct nucleus  $\cdot 0003$  long. Sometimes two perithecia become confluent.

\***Excipula strigosa**. *Fr.*—On *Sambucus pubens*. Mountains of Car. Sup. No. 4492.

Spores  $\cdot 0008$  long.

452. **Excipula erumpens**. *B.*—*Congesta erumpens glabra*; sporis curvulis breviter apiculatis. On stems of *Phytolacca*. Penns., Michener. No. 3601.

Erumpent smooth; spores slightly curved, shortly apiculate, with from 2 to 4 nuclei,  $\cdot 0006$  long.

453. **Excipula punctiformis**. *B.*—*Punctiformis hispida*; sporis curvis fortiter apiculatis latiusculis. On an old corn broom. Car. Inf. No. 1752.

Punctiform superficial hispid; spores curved enucleate, strongly apiculate, rather broad.

454. **Dinemasporium Pezizula**. *Lev.*—*Pezizaeforme hirtum*; sporis curvatis angustis, 5 nucleatis. On *Sambucus pubens*, mountains of Car. Sup., No. 4492.

Regular, pezizaeform, hairy, spores curved.

\* **Asteroma pomigena**. *Schwein!*—On apples. New England. Sprague, No. 5410.

\* **Asteroma Rosæ**. *Libert.*—On rose leaves. Car. Inf., No. 3676.

455. **Asteroma punctiforme**. *B.*—*Punctiforme*; floccis radiantibus tenerrimis; sporis simplicibus cymbiformibus 3-4 nucleatis. On rose leaves, No. 5946.

Minute, punctiform, with extremely delicate radiating threads;

\* The manuscript of the intervening numbers having been lost in transmission, they must be replaced at a future time.

spores slightly cymbæform, .0008 inch long, .00016 wide, with from three to four nuclei.

456. **Asteroma atramentarium.** *B.*—Nigerrimum compactum expansum; floccis radiantibus reticulatis; peritheciis minutis; sporis brevibus subcymbyformibus. On leaves of *Amelanchier* and *Pyrus arbutifolia*. *Car. Inf.*, No. 1773.

Forming broad black patches, with a reticulated radiating border; perithecia minute; spores shortly cymbiform, about .0005 long.

\* **Asteroma Robergei.** *Desm.*—On the inner side of stems of *Arundinaria*. *Car. Inf.*, No. 3213.

**Endobotrya.** *B. & C.*—Perithecia abdita; sporæ clavatæ pedunculatæ; episporium reticulatum; endosporium e cellulis globosis nucleatis transversim subseriatis.

457. **Endobotrya elegans.** *B. & C.*—On branches of beech. Maine. No. 5703. Perithecia concealed by the bark; spores .002 inch long, oozing out and forming black orbicular patches, clavate, pedunculate; external coat hyaline at first, continuous, then reticulated; endochrome consisting of globose nucleated, at length separable divisions, which are at first arranged in transverse layers. This is probably a state of some *Sphæria*, but the structure is so curious that for the present it is left under the name originally proposed.

458. **Cytispora orthospora.** *B. & C.*—Pustulis parvis, demum erumpentibus planis; sporis lineari-oblongis. On *Robinia*. Penns., Mich., No. 5158. New Jersey, No. 4681.

Pustules at length bursting through the bark, plane above; perithecia with a flat expanded base; spores .0004 inch long. In the Pennsylvanian plant the pustules are quite concealed by the bark, having probably not arrived at maturity, and the spores are rather longer, .0005 inch.

459. **Cytispora abnormis.** *B. & C.*—Pustulis minutis apice tantum erumpentibus; sporis oblongis binucleatis. On twigs of *Robinia*. *Car. Inf.*

Pustules minute, entirely covered by the bark, with the exception of the apex; spores oblong, .0003 inch long with two nuclei.

460. **Cytispora parva.** *B. & C.*—Pustulis minutis apice tantum punctiformi erumpentibus; peritheciis globosis; sporis oblongis angustis enucleatis. On twigs of *Robinia*. *Car. Inf.* No. 3424.

Pustules small, piercing the cuticle by the minute apex; perithecia globose; spores oblong, narrower than the last, but of equal length.

461. **Cytispora ficicola.** *B. & C.*—Pustulis minutis; peritheciis globosis, sporis oblongis curvulis. On twigs of fig. Pennsylvania, Michener, No. 4011.

Pustules minute, covered by the cuticle; perithecia globose; spores sausage-shaped .0003 inch long.

462. **Cytispora leucophthalma.** *B. & C.*—Pustulis minutis, apice niveo ostiolo atro percursis; peritheciis in stromate nigro conditis; sporis minutissimis curvulis.

On bark of *Cerasus caroliniensis*. *Car. Inf.* No. 2769. New Jersey. No. 4677.

Pustules minute, bursting through the bark by the snowwhite apex, which is pierced by the black common aperture in the centre; perithecia globose or elliptic in a black stroma; spores curved, very minute. The New Jersey plant, which was formerly named *C. nivosa*, has rather longer spores, but may be considered a variety. *C. niphostoma*, Mont. is very different.

463. **Cytispora Gordoniæ.** *B.*—Pustulis minutis immersis; sporis brevibus, fortiter curvatis utrinque angustioribus. On peduncles of *Gordonia lasiantha*. *Car. Sup.* No. 700.

Pustules minute, subcutaneous; spores short, strongly curved, thicker in the middle.

\* **Cytispora Persicæ.** *Schwein.*—On peach twigs. New York. Sartwell. No. 2655.

464. **Cytispora chloroglæa.** *B. & C.*—Pustulis oblongis hysteriiformibus, apice planis; sporis curvulis minutissimis chlorinis. On twigs of *Cornus sericea*. Mountains of New York, No. 4500.

Pustules oblong hysteriiform, bursting through the bark, flat above; spores very minute, sausage-shaped. The following *Cytisporæ*, with sausage-shaped spores, have been distributed under the following names:—*C. LAXA*, *B. & C.*, on *Calycanthus*. *Car. Inf.* No. 3209. *C. CORYNEOIDES*, *B. & C.*, No. 5938. On *Vitis labrusca*. *C. PUSTULATA*, *B. & C.* No. 4387. On roots of *Quercus alba*. Pennsylvania, Michener. *C. MICHENERI*, on ash. Pennsylvania, No. 5142. *C. AILANTHI*, *B. & C.* *Car. Sup.* No. 3432.

\* **Cytispora rhuinæ.** *Schwein.*—On *Rhus*. Maine, Rev. J. Blake. Spores .0002 inch long.

\* **Cytispora leucosperma.** *Fr.*—On twigs of various trees, under twenty different numbers, from various localities.

\* **Cytispora rubescens.** *Fr.*—On *Pyrus Americana*. Mountains of New York. No. 4432, 4473. On poplar. New England, Russell. No. 5912.

\* **Cytispora hyalosperma.** *Fr.*—On *Acer rubrum*. *Car. Sup.* *Car. Sup.* No. 20.

\* **Cytispora aurea.** *Fr.*—Boston. Sprague. No. 6265.

\* **Cytispora chrysoesperma.** *Fr.*—On *Populus græca*. Pennsylvania, Michener. No. 3542.

\* **Cytispora pinastri.** *Fr.*—New England. Russell. No. 5960.

\* **Cytispora carbonacea.** *Fr.*—Ohio. Lea. No. 131.

\* **Micropera Drupacearum.** *Lér.*—On *Prunus* and *Cerasus*

*avium*. Pennsylvania, Michener. No. 3537, 4186. Maine, E. S. Morse. No. 5440.

465. **Micropera rubida**. *B. & C.*—Transversim erumpens, rubida; sporis filiformibus longissimis. On cherry. Pennsylvania, Michener. No. 3934.

Bursting transversely through the bark, reddish within and without; spores thread-shaped, very long, the endochrome here and there interrupted.

\* **Discella carbonacea**. *B. & Br.*—On willow twigs. Maine. Rev. J. Blake. No. 6304.

466. **Discella effusa**. *B. & B.*—Pustulis punctiformibus stratum nigrum efformantibus; sporis oblongis, angustis. On decaying apples. Pennsylvania, Michener. No. 3541.

Pustules minute, crowded into black effused spots; spores oblong, .0008 long, .00016 wide, without any nucleus.

467. **Discella rugosa**. *B. & C.*—Pustulis sparsis curvulis subhysterii formibus; sporis oblongis utrinque attenuatis, endochromate utrinque retracto. On *Acer rubrum*. Pennsylvania, Michener.

Pustules scattered hysteriiform, slightly curved, here and there dotted with the slightly prominent ostiola; spores pedicellate, oblong, attenuated, slight at either extremity, .0005 inch long; endochrome retracted towards either apex; pedicel as long as the spores.

468. **Discella Magnoliæ**. *B. & C.*—Pustulis sparsis, apice tantum nudis; sporis oblongis brevioribus. On twigs of *Magnolia cordata*. Virginian mountains. No. 3359.

Pustules small, covered with the cuticle, which is not discoloured, except at the apex; spores .0003 inch long, oblong, .00008 wide; pedicels as long as the spores.

469. **Discella obscura**. *B. & C.*—Pustulis minutis depressis sparsis fuscis, epidermide tectis; sporis oblongis. On twigs of *Acer striatum*. Massachusetts. No. 3395.

Pustules minute, rather irregular, depressed, covered with the transparent cuticle through which their brown tint is visible; spores oblong, .0003-.0006 long, slightly wider than in the last.

470. **Discella microspora**. *B. & C.*—Pustulis parvis elongatis depressis; sporis brevibus subellipticis. On twigs of *Ceanothus Americanus*. Pennsylvania, Michener. No. 3599.

Pustules elongated, depressed, covered with the cuticle, which at length becomes transparent in the centre and bursts; spores subelliptic, .0003 long, .00013 wide.

\* **Phlyctæna vagabunda**. *Desm.*—On stems of *Phytolacca*. Alabama, Beaumont, No. 4656; spores, .0006 long.

471. **Phlyctæna arcuata**. *B.*—Pustulis minutis, epidermide

tectis, sporis filiformibus apice hamatis. On dead *Solidago*. New England. Russell. No. 5814—5915.

Pustules minute slightly convex, covered with the cuticle; spores filiform, curved over at the apex, .001 long.

472. **Phlyctæna orthospora.** *B. & C.*—Pustulis oblongis fusco-marginatis; sporis oblongis. On *Phytolacca*. Pennsylvania, Michener.

Pustules oblong covered with the cuticle, with a narrow brown border; spores oblong, .00062 long.

\* **Melanconium magnum.** *B.*—On *Acer*. Connecticut. Wright. No. 5615—5646; spores .001—0015 long.

473. **Melanconium cellulolum.** *B. & C.*—Pustulis ellipticis, rima apertis; stromate celluloso; sporis oblongis nucleatis. On stems of *Rhus radicans*. Pennsylvania. Michener. No. 5130.

Pustules elliptic covered with the cuticle which splits along the major axis, cellular within; spores oblong with a nucleus .00057 long.

474. **Melanconium cinctum.** *B. & C.*—Pustulis nigris epidermide cinctis; sporis obovatis. On small branches of *Castanea pumila*. Mountains Car. Sup. No. 4451.

Pustules black, surrounded by the cuticle; spores broadly obovate, .0008 long, with a minute nucleus.

475. **Melanconium varium.** *B. & C.*—Pustulis liberis elevatis subtruncatis; sporis oblongis. On dead twigs. New England. Sprague. No. 5819.

Pustules free, somewhat truncate above; spores oblong, .00016 long, sometimes slightly curved.

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## SORBY'S RESEARCHES ON CHROMATOLOGY.

Mr. H. C. Sorby, F.R.S., has published, in the Proceedings of the Royal Society, some of the results of his examination of *Algæ* and other Cryptogamia, by spectrum-analysis. We quote the following:—

### *Connexion of the different Groups of Algæ.*

Perhaps I cannot choose a better illustration than that furnished by the different groups of *Algæ*—the olive, the red, and the green. They contain at least twelve different colouring-matters, distributed very differently, in such a manner as to connect, and yet to distinguish, the different groups very characteristically. I have not yet made any accurate quantitative analyses, and therefore express